

L62 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1980:450591 CAPLUS

DN 93:50591

ED Entered STN: 12 May 1984

TI Antireflection film for photoelectric elements

IN Nishimura, Nobuo

PA Sharp Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC H01L031-02

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 55009484	A2	19800123	JP 1978-83359	19780707 <--
	JP 60005229	B4	19850208		
PRAI	JP 1978-83359	A	19780707		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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JP 55009484	IC	H01L031-02
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AB A coating mixture consisting of 1 Ta alkoxide and  $\geq 1$  volume part of a solution containing  $\leq 1$  volume part carboxylic acid is coated on the surface of a photoelec. cell and heated to form a 500-1000-Å thick Ta oxide film of n 1.85-2.15. Thus, a solar cell was coated with a coating mixture consisting of Ta ethylate, glacial acetic acid 1, and EtOH 8 volume parts. The n of the film was 1.85-2.13 for the drying temps. of 200-800%.

ST tantalum oxide antireflection coating; solar cell antireflection coating

IT Photoelectric devices

(solar, tantalum oxide antireflection coatings for, manufacture of)

IT 1314-61-0P

RL: PREP (Preparation)

(antireflection coating for solar cells, manufacture of)

RN 1314-61-0P

L62 ANSWER 2 OF 3 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 1980-15764C [09] WPIX

TI Anti-reflection film for photoelectric transducer - comprises tantalum oxide formed by heating compsn. containing solvent, tantalum alkoxide and carboxylic acid.

DC L03 U12

PA (SHAF) SHARP KK

CYC 1

PI	JP 55009484	A	19800123 (198009)*	<--
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	JP 60005229	B	19850208 (198510)	
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PRAI JP 1978-83359 19780707

IC H01L031-02

AB JP 55009484 A UPAB: 19930902

The compsn. is prepared by mixing  $>1$  pt. volume solvent and a solute containing 1

pt. volume of tantalum alkoxide and  $<1$  pt. volume of carboxylic acid. It is coated on the light-receiving surface of a photoelectric transducer. The compsn. is heated to form a tantalum oxide film on the light-receiving surface. The tantalum oxide film has refractive index 1.85-2.15 and a thickness 500-1000 angstroms.

This anti-reflection film is easily mfd. and it is suitable for mass production

In an example, a coating compsn. is prepared by mixing 1 pt. volume tantalum ethylate, 1 pt. volume glacial acetic acid, and 8 pts. volume ethyl

alcohol. The compsn. is coated on the light-receiving surface of a solar cell. The coated solar cell is heated at 300 degrees C in a N2 atmos. to form a tantalum oxide film having refractive index 2.00. The tantalum oxide film serves as the anti-reflection film.

FS CPI EPI  
FA AB  
MC CPI: L03-D04E

L62 ANSWER 3 OF 3 JAPIO (C) 2005 JPO on STN

AN 1980-009484 JAPIO

TI COATING FILM FOR PHTOELECTRIC TRANSDUCER

IN NISHIMURA NOBUO

PA SHARP CORP

PI JP 5509484 A 19800123 Showa

AI JP 1978-83359 (JP53083359 Showa) 19780707

PRAI JP 1978-83359 19780707

SO PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1980

IC ICM H01L031-02

AB PURPOSE: To prepare tantalum oxide coatings suitable for mass production.  
CONSTITUTION: One volume of tantalum ethylate, one volume of glacial acetic acid and eitht volume of ethyl alcohol are mixed, and the tantalum ethylate and the glacial acetic acid are reacted to produce tantalic acid. This coating composition is then applied to the light receiving plane of a solar battery, the resulting coating is heated in a nitrogen gas to form a tantalum oxide film on the plane. The film is so defined as to have the refractive index of 1.85 to 2.15 and the thickness of 500 to 1000 &angst;. This process for preparing the tantalum oxide coating film is very suitable for mass production with a high speed and easy production.  
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